

Aero Design Ltd.**Work Order Control Sheet**Work Order#: **2017-218** Date Opened: **26 December 2017**Title: **Assembly**Aircraft OEM: **Eurocopter**Aircraft Model: **AS350**Product Type: **Cargo Basket**Product Model: **XL Ski**Quantity: **1****Work Order Contents**

Work Order/Build Sheets (Procedures Provided)
Additional Work Sheets (Standard Practice)
Drawings (See List Below)
Parts Distribution Sheet
Sub Component Tags
Completed Certification
Time Sheet (R&D)
Notes

Initial or N/A

JR
N/A
JR
JR
N/A
JC
N/A
N/A

Build Sheet Contents

Tasks Initialled
Dual Inspections Initialled

Initial or N/A

JC
JC

Drawing List

Drawing #	Rev #	Description	Initial or N/A
94010	1	Basket Assembly	JR
70405	4	Lid Walkway Mod.	JR
84240	0	Lid Brace Installation	JR
84255	2	Handle Installation	JR
94027	1	Placard	JR
84261	2	Handle Assembly	JR

Traveller

Install walkway on lid
Install lid on basket body
Re-tap mounting lug holes and install mount lugs
Install handle brackets
Install handle
Install lid prop
Install data plate

Initial or N/A

JR
JR
JR
JR
JR
JR
JR

Work performed by:

Print: J. RekveSign: 

ICC / Dual Inspection performed by:

Print: J. ClarkeSign: 

Work Order closed by:

Print: J. ClarkeSign: 

Approved Manufacturing Facility 73-04

Form 20.D.03

Component Completion

Quantity Complete on This Work Order
Quantity Incomplete on This Work Order
Further Processing Required Before Release
Release to Stock as Components

As Instructed

1
N/A
N/A
N/A

Certification

Form One Completed
Serviceable (Green) Tag Completed
In Process (Yellow) Tag Completed
Unserviceable (Red) Tag Completed
Parts Placed in Stores for Distribution

Initial or N/A

JC
N/A
N/A
N/A
N/A

Additional Documentation

Documentation of a minor change
Non-Conformance Report Required
Service Difficulty Report Required

Initial or N/A

N/A
N/A
N/A

Billing

Local (Aero Design)
Research and Development
Third Party

Initial or N/A

JC
N/A
N/A

SCA: AD01Date: 26-Dec-17SCA: AD02Date: 26-Dec-17SCA: AD02Date: 29-Dec-17

Rev. Original 23 Sep 2014



Aero Design Ltd.

9888 A Malaspina Rd., Powell River, BC
V8A 0G3, 604-483-AERO (2376)

Quantity:

1

PN:

Tread Plate

Aircraft:

All

Model: N/A

Description:

Lid Walkway Checker Plate

Supplier:

Ryerson

Color:

Aluminum

WO#:

N/A

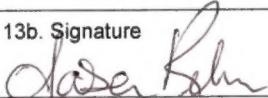
PO# 17081



Aero Design Ltd.

9888 A Malaspina Rd., Powell River, BC
V8A 0G3, 604-483-AERO (2376)

Quantity:	1	
PN:	MS20001P4-9600	
Aircraft:	All	Model: All
Description:	Hinge	
Supplier:	GKN Aerospace Bandy Machining	
Color:	N/A	
WO#:	N/A	PO# 17017

1. Approving Civil Aviation Authority/Country Transport Canada		2. AUTHORIZED RELEASE CERTIFICATE FORM ONE			3. Form Tracking No. 2017-0492
4. Organization Name and Address AERO Design Ltd. – 9888A Malaspina Road, Powell River, BC, V8A 0G3					5. Work Order/Contract/Invoice WO 2017-218
6. Item 1.	7. Description Cargo Basket	8. Part Number 94010-01	9. Qty. 1	10. Serial/Batch No. 94001-88	11. Status/Work New
12. Remarks Modified with walkway on lid IAW DCL704					
13a. Certifies that the items identified above were manufactured in conformity to: <input checked="" type="checkbox"/> Approved design data and are in condition for safe operation. <input type="checkbox"/> Non approved design data specified in block 12.			14a. <input type="checkbox"/> CAR 571.10 Maintenance Release <input type="checkbox"/> Other regulation specified in block 12. Certifies that unless otherwise specified in block 12, the work identified in block 11 and described in block 12, has been performed in compliance with the Canadian Aviation Regulations.		
13b. Signature 		13c. Approved Organization Number AMF 73-04		14b. Signature	
13d. Name Jason Rekve – AD01		13e. Date (dd/mmm/yyyy) 26 Dec 2017		14c. Approved Organization Number	
				14d. Name	
				14e. Date (dd/mmm/yyyy)	
<p align="center">Installer Responsibilities</p> <p>This certificate does not constitute authority to install.</p> <p>Installers working in accordance with the national regulations of a country other than that specified in block 1 must ensure that their regulations recognize certifications from the country specified.</p> <p>Statements in blocks 13a or 14a do not constitute installation certification. In all cases, the technical record for the aircraft must contain an installation certification issued in accordance with the applicable national regulations before the aircraft may be flown.</p>					

CARGO BASKET ASSEMBLY - COMMON

SN 94001-88

Work Order: 2017-218

Date Open: 26 Dec 2017

General

These instructions apply to all cargo basket assemblies. Refer to the following drawings, at the current revision, for dimensions and details. Drawings are linked to the source for ease of printing.

		Basket			Lid	Lid	Handle		
✓	Basket Type	Ass'y	Placard	Mat'l	Walk	Prop	Inst'n	Ass'y	Mat'l
Bell 206B – right side only									
	Short	80210	80227	Mat'l	70405	84240	84255	84261	Mat'l
	Medium	80310	80327	Mat'l					Mat'l
	Long	81110	81127	Mat'l					Mat'l
Bell 206L/407 – Right side only									
	Low Standard	69810	69827	Mat'l	70405	84240	84255	84261	Mat'l
	Low Wide	94510	94527	Mat'l					Mat'l
	Low Ski	94610	94627	Mat'l					Mat'l
	High Ski	76610	76625	Mat'l					Mat'l
Bell Medium – left or right									
	Standard	75110	75127	Mat'l	70405	84240	84255	84261	Mat'l
	Extra Large (ski)	95510	95527	Mat'l					Mat'l
	Mega	100610	100627	Mat'l					Mat'l
Bell 429 – right or left									
	Standard – Pre S/N 71	95910	95927	Mat'l	70405	84240	84255	84261	Mat'l
	Standard – Post S/N 71	95950	95927	Mat'l					Mat'l
Eurocopter AS350/AS355 – left or right									
	Short	77610	77627	Mat'l	70405	84240	84255	84261	Mat'l
	Medium	76410	76427	Mat'l					Mat'l
	Long	78410	78427	Mat'l					Mat'l
	Ski	94010	94027	Mat'l					Mat'l
Robinson R44 – left or right									
	Standard	90610	90627	Mat'l	70405	84240	84255	84261	Mat'l
MD600									
	Standard	82810	82827	Mat'l	70405	84240	84255	84261	Mat'l

Hyperlinking to specific excel sheet –

1. on desired excel sheet cell A1, set name of cell, eg. Assembly.
2. at end of hyperlink add #Assembly (filename.xls#Assembly).

AD
73-04
01

1. Lid Assembly

a. Install lid bumpers on bottom.

- i. Drill $\frac{1}{4}$ " holes using center drill, 3 (standard/medium) or 4 (long/ski) places.
- ii. Fill bumper holes with RTV silicone sealant.
- iii. Insert 49205-14 lid bumper, 3 or 4 places per lid.

b. Install placard on bracket on top of lid

Note: 959 and 1006 placard is installed on body.

- i. Locate placard on bracket.
- ii. Drill #30 through placard and bracket, using holes in placard.
- iii. Remove placard and de-burr holes in placard and on bracket.
- iv. Locate placard on bracket, and cleco in place.
- v. Rivet placard with four CR3213-4-02 CherryMax rivets.

c. Option: Install walkway on top of lid (lid must be fitted with walkway provisions)

- i. Note: avoid touching surface of tread plate with bare hands to prevent smudges or marks on the top surface.
- ii. Pull tread plate from stock. Shear tread plate to length.
- iii. De-burr edges of tread plate with scotch-brite wheel on bench grinder.
- iv. Locate tread plate on lid. Hold tread plate in place with bags of lead shot.
- v. Mark and drill #30 holes:
 1. 0.25" from edge of tread plate, centre on cross members (0.38")
 2. 0.25" from edge of tread plate, middle of each walkway stringer
- vi. De-burr and counter-bore (if required to provide clearance of rivet head on checker pattern) all holes in tread plate using $\frac{1}{4}$ " piloted counter bore on both sides.
- vii. De-burr holes in lid tubes.
- viii. Apply bead of RTV silicone sealant along all tubes under tread plate.
- ix. Set tread plate in place, secure with clecos if necessary.
- x. Rivet placard with CR3213-4-02 CherryMax rivets

d. Record PO/WO of all parts (including lid) used in steps above on attached material tracking list.

2. Body Assembly

a. Install attachment fittings

- i. Carefully remove excess powder coat from around attachment lug threads using a countersink.
- ii. Run 3/8-24 tap into attachment lugs to clear threads.
- iii. Apply anti-seize compound to attachment fittings 96710-01 (alternate: Ancra 40088-14)
- iv. Install attachment fittings with two NAS1149F0363P washers in four lugs in basket.
 1. 90610 (Robinson R44) basket only:
 - a. Install 1 fitting 90628-01 in lower forward attachment lug only.
 - b. Install 3 96710-01 fittings in remaining locations.
- v. Torque to 160-190 in-lbs (13.3-15.8 ft-lbs).

AD
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01

- b. 959 and 1006 Baskets only: Install inboard sheet on upper rim of basket
 - i. Locate sheet on basket.
 - ii. Drill #30 through sheet and rim, located as specified on drawing. Cleco in place.
 - iii. Remove sheet and de-burr holes in sheet and rim.
 - iv. Apply bead of RTV silicone sealant along all tubes under sheet.
 - v. Locate sheet on basket, and cleco in place.
 - vi. Rivet sheet with CR3213-4-02 CherryMax rivets.
- c. 959 Basket only: Install forward sheet
 - i. Locate sheet on basket. Ensure sufficient clamps are in place.
 - ii. Drill #30 through sheet, rim and hoop, located as specified on drawing. Cleco in place.
 - iii. Remove sheet and de-burr holes in sheet and rim.
 - iv. Apply bead of Pro-Seal sealant along all tubes under sheet.
 - v. Locate sheet on basket, and cleco in place.
 - vi. Rivet sheet with CR3213-4-02 CherryMax rivets.
- d. Record PO/WO of all parts (including basket) used in steps above on attached material tracking list.

3. Hinge Installation

- a. Prepare hinge.
 - i. Cut hinge to length:
 - 1. 776, 906 – 54"
 - 2. 751, 803 – 70"
 - 3. 698, 764, 945 – 72"
 - 4. 766, 784 – 90"
 - 5. 940, 946, 959 – 95"
 - 6. 1006 – 107"
 - ii. Drill #30 pilot holes using hinge jig. For long hinges, flip at specified location on jig.
- b. Install hinge on basket
 - i. Locate hinge on basket (standard baskets)
 - 1. centre fore/aft
 - 2. 0.15" – 0.18" up from bottom edge
 - ii. Locate hinge on basket (extra wide baskets)
 - 1. centre fore/aft
 - 2. set hinge at 90 degrees (as if lid would be installed) using a small square, locate vertical side at 22.5" from outboard edge.
 - iii. Drill #30 through holes in hinge into basket rim. Cleco in place with 1/8 (copper) clecos.
 - iv. Drill holes up to #21 through hinge and rim. Replace 1/8 clecos with 5/32 (black) clecos.
 - v. Remove hinge and de-burr holes in hinge and basket rim.
 - vi. Cleco hinge to basket with 5/32 clecos.
 - vii. Install hinge with CherryMax rivets
 - 1. CR3523-5-02 monel rivets – last 2 rivets in each end
 - 2. CR3213-5-02 aluminum rivets – all other locations

- c. Install lid on basket
 - i. Locate lid on hinge (all baskets)
 - 1. center fore/aft
 - 2. 0.15" – 0.18" down from top edge
 - ii. Drill #30 through holes in hinge into lid rim. Cleco in place with 1/8 clecos.
 - iii. Drill holes up to #21 through hinge and rim. Replace 1/8 clecos with 5/32 clecos.
 - iv. Remove hinge and de-burr holes in hinge and lid rim.
 - v. Cleco lid to hinge with 5/32 clecos.
 - vi. Install hinge with CherryMax rivets
 - 1. CR3523-5-02 monel rivets – last 2 rivets in each end
 - 2. CR3213-5-02 aluminum rivets – all other locations
- d. Record PO of hinge and rivets on attached material tracking list.

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4. Install Handle

- a. Install handle brackets.
 - i. Set 84267-01 handle bracket on provisions in hoops, 2 places.
 - ii. Install AN3-11A bolt, NAS1149F0363P washer (2), MS21044N3 nut. Two places per bracket, two brackets per basket.
 - iii. Torque AN3 bolts to 20-25 in-lbs.
- b. Install handle
 - i. Trim 36278-01R and 36278-01L springs to ensure end of spring does not extend past edge of handle bracket, approximately 1/8". Set springs over bushing of 84261-01 handle assembly.
 - ii. Grease two 36275-01 bushings with Mobil Grease 28 or equivalent. Insert into bushings of handle assembly.
 - iii. Locate handle on basket lid. Insert AN3-12A bolt with NAS1149F0363P through bracket on lid and handle bushing on one end of handle.
 - iv. On other end of handle, hook spring over catch rivet on handle assembly and use spring tool to twist spring to catch arm on bracket on lid while inserting AN3-12A bolt with NAS1149F0363P washer through lid bracket and handle bushing.
 - v. At first end, remove bolt and repeat step iv.
 - vi. Install NAS1149F0363P washer and MS21044N3 nut on both AN3-12A bolts.
 - vii. Torque AN3 bolts to 20-25 in-lbs.
- c. Check handle
 - i. Operate handle to ensure handle does not bind and springs hold handle in.
 - ii. Snap handle into brackets to ensure handle locks.
- d. Record PO/WO of all parts used in steps above on attached material tracking list.



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AMF 73-04

Nomenclature: Handle Bar Assy No. of pieces: 1

Manufacturer: Aero Design

Part No.: 84261-01 Serial/Batch No.: NSM

TTSN: N/P TSO: N/A Rem.: N/A

Work Order No.: 2017-194

Remaining Tasks to be Performed: To be installed

Signature: [Signature]

Date: Nov 21/2017 Lic. No. / SCA AD 73-04 05

Serviceable

AD
73-04
01

5. Install lid brace

- a. Locate 36280-01 lid brace on bushing in basket. Ensure brace is on forward end of basket as it will be installed on the helicopter.
- b. On lid end, insert AN970-3 washer into end of lid brace. Insert AN3-15A bolt with NAS1149F0363P washer through AN970-3 washer, lid prop, and lid bushing. Install NAS1149F0363P washer and MS21044N3 nut on bolt.
- c. On basket end, insert AN3-17A bolt with AN970-3 washer through lid prop and basket bushing. Install NAS1149F0363P washer and MS2144N3 nut on bolt.
- d. Ensure brace is seated on lip of bushings before tightening nuts.
- e. Torque AN3 bolts to 20-25 in-lbs.
- f. Record PO/WO of all parts used in steps above on attached material tracking list.

6. 946 Basket Only: Install Cutout Brace

- a. Locate 94621-01 Brace over aft cross tube cutout.
- b. Install two AN4-6A bolts and two AN4-27A bolts with NAS1149F0463P washers.
- c. Torque AN4 bolts to 50-70 in-lbs.

N/A OK

AD
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02

7. Final Inspection

Dual inspection by a different person than assembled the basket.

- a. Check for general condition and correct assembly:
 - i. Bolts are tight
 - ii. Rivets are installed correctly
 - iii. Handle operates correctly
 - iv. Lid brace operates correctly
- b. Check that PO/WO numbers have been recorded.



WO# _____

Approved Manufacturing Facility 73-04

Form 20.F.06

Rev. Original 27 May 2013



Aero Design Ltd.

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Phone: 604-483-2376 Fax: 604-483-2372 E-mail: info@aerodesign.ca

AMF 73-04

Nomenclature: AS350XL Lid No. of pieces: 1

Manufacturer: Aero Design Ltd.

Part No.: 94012-01 Serial/Batch No.: NA

TTSN: NA TSO: NA Rem.: NA

Work Order No.: 2017-178-07

Remaining Tasks to be Performed: Clean up, inspect,
powder coat. ✓

Signature: David Martz

Date: Dec 11/2017 Lic. No. / SCA AD 73-04 85

In Process



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AMF 73-04

In Process

Remarks

Powder Coat Po 17118

Work Order: 2017-218Date Opened: 26 DEC 2017

Material Tracking Sheet
Eurocopter AS350 / AS355
Extra Large Basket Assembly

1 of 2

Ass'y Step	Qty	Detail Drawing	Part Number	Description	Material	PO/WO
	<u>1</u>		94010-01	Cargo Basket Assembly	<i>SN 94001-88</i>	
Step 1				<i>Lid Assembly</i>		
Step 1.a.	. 1		94012-01	Basket Lid Assembly		<i>2017-178-07</i>
	. . 4		49205-14	Bumper	Argus Industries Bumper	<i>See PDS</i>
	. . A/R		--	Sealant	Commercial Silicone RTV sealant	
Step 1.b.	. . 1		94027-01	Placard	0.063 Sheet, 6061-T6 Aluminum	<i>2015-03</i>
	. . 4		CR3213-4-02	Cherry Rivet		<i>17070</i>
Step 1.c.	. 1		70405-01	Lid Step Modification		
(option)	. . 1		70405-04	Tread Plate	3003 Aluminum Tread Plate, 0.063"	<i>17081</i>
	. . A/R		CR3213-4-02	Cherry Rivet		<i>17070</i>
	. . A/R		--	Sealant	Commercial Silicone RTV sealant	
Step 2				<i>Basket Assembly</i>		
Step 2.a.	. 1		94011-01	Basket Body Assembly		<i>2017-178-04</i>
	. . 4		96710-01	Fitting	Alternate: Ancra 40088-14	<i>See PDS</i>
	. . 8		AN960-616	Washer		<i>See PDS</i>
Step 3				<i>Hinge Installation</i>		
	. 1		MS20001P4	Piano Hinge	95"	<i>17017</i>
	. 8		CR3523-5-02	Cherry Rivet		<i>15031</i>
	. A/R		CR3213-5-02	Cherry Rivet		<i>16053</i>
Step 4	. 1		84255-01	<i>Handle Installation</i>		
Step 4.a.	. . 2		84267-01	Bracket	Delrin, 3/4" Sheet	<i>2017-50</i>
	. . 4		AN3-11A	Bolt		<i>See PDS</i>
	. . 8		NAS1149F0363P	Washer		<i>See PDS</i>
	. . 4		MS21044N3	Nut		<i>See PDS</i>

Work Order: 2017-218Material Tracking Sheet
Eurocopter AS350 / AS355
Extra Large Basket Assembly

2 of 2

Date Opened: 26 Dec 2017

Ass'y Step	Qty	Detail Drawing	Part Number	Description	Material	PO/WO
Step 4.b.	.. 1		84261-01	Handle Assembly		2017-194
	.. 2		36278-01	Spring (1 left, 1 right)	304 Stainless, 1/16" Dia Music Wire	See PDS
	.. 2		36275-01	Bushing	Brass, 5/16" Dia	See PDS
	.. 2		AN3-12A	Bolt		See PDS
	.. 4		NAS1149F0363P	Washer		See PDS
	.. 2		MS21044N3	Nut		See PDS
Step 5				Lid Brace Installation		
	. 1		36280-01	Brace Assembly		2017-170
	. 1		AN3-15A	Bolt		See PDS
	. 1		AN3-17A	Bolt		See PDS
	. 2		AN970-3	Washer		See PDS
	. 3		NAS1149F0363P	Washer		See PDS
	. 2		MS21044N3	Nut		See PDS
Step 6				Inspection	None	



Aero Design Ltd.

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AMF 73-04

Nomenclature: AS350 XL Body No. of pieces: 1

Manufacturer: Aero Design Ltd.

Part No.: 94011-01 Serial/Batch No.: NA

TTSN: NA TSO: NA Rem.: NA

Work Order No.: 2017-178-04

Remaining Tasks to be Performed: Clean up, inspect,
powder coat. ✓

Signature: David Marty

Date: Dec 8 / 2017 Lic. No. / SCA 7304 05

In Process